

Switch-disconnector 4p 1400A 1000VDC

Part no. **N4-4-1400-S1-DC**
 119887
EL Number **4356079**
(Norway)

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| General specifications | | |
| Product name | | Eaton Moeller series NZM switch-disconnector |
| Part no. | | N4-4-1400-S1-DC |
| EAN | | 4015081177356 |
| Product Length/Depth | | 401 millimetre |
| Product height | | 207 millimetre |
| Product width | | 280 millimetre |
| Product weight | | 22 kilogram |
| Compliances | | RoHS conform |
| Certifications | | IEC |
| Product Tradename | | NZM |
| Product Type | | Switch-disconnector |
| Product Sub Type | | None |
| Delivery program | | |
| Application | | Open areas Utility buildings |
| Type | | DC switch-disconnector Switch-disconnector |
| Circuit breaker frame type | | N4 |
| Number of poles | | Four-pole |
| Amperage Rating | | 1400 A |
| Features | | Version as emergency stop installation Version as maintenance-/service switch Remote operation with shunt releases / remote operator Version as main switch Motor drive optional |
| Special features | | IEC/EN 60947-3 CCC China Compulsory Certificate Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947-3 and VDE 0660. N switch-disconnectors can be combined with NZM...-XU, NZM...-XA shunt releases and auxiliary contacts as well as with NZM...-XR... remote operator. For DC switching, all 4 contacts must be connected in series. Refer to the information on jumper kit accessories. Supplied as standard: Screw connection box terminal optional. When working with ungrounded systems (e.g., IT), the installation must ensure that a double ground fault will be impossible. Switch can not be combined with plug-in/withdrawable units and/or connection on rear. N4-4-...-S15-DC feeder unit and outgoer from the bottom only. Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release Rated current = rated uninterrupted current: 1400 A Values for rated uninterrupted current at 65 °C include jumpers. |
| Technical Data - Electrical | | |
| Voltage rating | | 1000 V - 1000 V |
| Rated operating voltage (Ue) at AC - max | | 0 V |
| Rated insulation voltage (Ui) | | 1250 V |
| Current rating (Iu) at 40°C with terminal jumpers | | 1400 A |
| Current rating (Iu) at 65°C with terminal jumpers | | 1400 A |
| Rated conditional short-circuit current (Iq) | | 0 kA |
| Rated operational current | | 1400 A (DC 22-A) 1400 CSA (DC-21B) |
| Rated permanent current at AC-21, 400 V | | 0 A |
| Rated permanent current at AC-23, 400 V | | 0 A |
| Rated short-time withstand current (Icw) | | 34 kA |
| Rated short-time withstand current (t = 0.1 s) | | 34 kA |
| Rated operating power at AC-3, 400 V | | 0 kW |
| Rated operating power at AC-23, 400 V | | 0 kW |
| Switching power at 400 V | | 0 kW |
| Electrical connection type of main circuit | | Screw connection |
| Number of operations per hour - max | | 60 |

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| Handle type | | Rocker lever |
| Utilization category | | DC-22 A |
| Overvoltage category | | III |
| Pollution degree | | 3 |
| Technical Data - Mechanical | | |
| Mounting Method | | Fixed Ground mounting Intermediate mounting Built-in device fixed built-in technique Distribution board installation |
| Degree of protection | | IP20 |
| Degree of protection (IP), front side | | IP20 |
| Number of auxiliary contacts (change-over contacts) | | 0 |
| Number of auxiliary contacts (normally closed contacts) | | 0 |
| Number of auxiliary contacts (normally open contacts) | | 0 |
| Number of switches | | 1 |
| Handle color | | Black |
| Switch positions | | I, +, 0 |
| Special features | | IEC/EN 60947-3 CCC China Compulsory Certificate Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947-3 and VDE 0660. N switch-disconnectors can be combined with NZM...-XU, NZM...-XA shunt releases and auxiliary contacts as well as with NZM...-XR... remote operator. For DC switching, all 4 contacts must be connected in series. Refer to the information on jumper kit accessories. Supplied as standard: Screw connection box terminal optional. When working with ungrounded systems (e.g., IT), the installation must ensure that a double ground fault will be impossible. Switch can not be combined with plug-in/withdrawable units and/or connection on rear. N4-4-...-S15-DC feeder unit and outgoer from the bottom only. Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release Rated current = rated uninterrupted current: 1400 A Values for rated uninterrupted current at 65 °C include jumpers. |
| Lifespan, mechanical | | 10000 operations |
| Technical Data - Mechanical - Terminals | | |
| Standard terminals | | Screw terminal |
| Terminal capacity (aluminum stranded conductor/cable) | | 25 mm ² - 240 mm ² (4x) at 4-hole tunnel terminal |
| Terminal capacity (copper busbar) | | Min. 25 mm x 5 mm direct at switch rear-side connection M10 at rear-side screw connection Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate Max. 10 mm x 80 mm (2x) at rear-side width extension Max. 50 mm x 10 mm (2x) direct at switch rear-side connection 50 mm x 10 mm (2x) at rear-side 2-hole module plate Min. 25 mm x 5 mm at rear-side 1-hole module plate Max. 80 mm x 10 mm (2x) direct at switch rear-side connection Min. 60 mm x 10 mm at rear-side width extension |
| Terminal capacity (copper solid conductor/cable) | | 95 mm ² - 240 mm ² (6x) at rear-side width extension 120 mm ² - 300 mm ² (1x) at rear-side 1-hole module plate 95 mm ² - 300 mm ² (2x) at rear-side 1-hole module plate 35 mm ² - 185 mm ² (4x) at rear-side 2-hole module plate 95 mm ² - 185 mm ² (2x) at rear-side 2-hole module plate 50 mm ² - 240 mm ² (4x) at 4-hole tunnel terminal 300 mm ² (4x) at rear-side width extension |
| Terminal capacity (copper stranded conductor/cable) | | 50 mm ² - 185 mm ² (4x) direct at switch rear-side connection 120 mm ² - 185 mm ² (1x) direct at switch rear-side connection |
| Terminal capacity (copper strip) | | 10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) 10 segments of 80 mm x 1 mm (2x) at rear-side width extension Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal |
| Design verification as per IEC/EN 61439 - technical data | | |
| Rated operational current for specified heat dissipation (In) | | 1400 A |
| Equipment heat dissipation, current-dependent | | 290 W |
| Ambient operating temperature - min | | -25 °C |
| Ambient operating temperature - max | | 70 °C |
| Ambient storage temperature - min | | 40 °C |
| Ambient storage temperature - max | | 70 °C |
| Design verification as per IEC/EN 61439 | | |
| 10.2.2 Corrosion resistance | | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | | Meets the product standard's requirements. |

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| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | | Meets the product standard's requirements. |
| 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects | | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | | Meets the product standard's requirements. |
| 10.3 Degree of protection of assemblies | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | | Is the panel builder's responsibility. |
| 10.9.2 Power-frequency electric strength | | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.12 Electromagnetic compatibility | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 Mechanical function | | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |
| Additional information | | | |
| Functions | | | Disconnectors/main switches Interlockable Voltage release optional Photovoltaic applications |

Technical data ETIM 9.0

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| Low-voltage industrial components (EG000017) / Switch disconnecter (low voltage) (EC000216) | | | |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecI@ss13-27-37-14-03 [AKF060018]) | | | |
| Version as main switch | | | Yes |
| Version as maintenance-/service switch | | | Yes |
| Version as safety switch | | | No |
| Version as emergency stop installation | | | Yes |
| Version as reversing switch | | | No |
| Number of switches | | | 1 |
| Max. rated operation voltage Ue AC | | V | 0 |
| Rated operating voltage | | V | 1000 - 1000 |
| Rated permanent current Iu | | A | |
| Rated permanent current at AC-23, 400 V | | A | 0 |
| Rated permanent current at AC-21, 400 V | | A | 0 |
| Rated operation power at AC-3, 400 V | | kW | 0 |
| Rated short-time withstand current Icw | | kA | 34 |
| Rated operation power at AC-23, 400 V | | kW | 0 |
| Switching power at 400 V | | kW | 0 |
| Conditioned rated short-circuit current Iq | | kA | 0 |
| Number of poles | | | 4 |
| Number of auxiliary contacts as normally closed contact | | | 0 |
| Number of auxiliary contacts as normally open contact | | | 0 |
| Number of auxiliary contacts as change-over contact | | | 0 |
| Motor drive optional | | | Yes |
| Motor drive integrated | | | No |
| Voltage release optional | | | Yes |
| Device construction | | | Built-in device fixed built-in technique |
| Suitable for floor mounting | | | Yes |

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| Suitable for front mounting 4-hole | | | No |
| Suitable for front mounting centre | | | No |
| Suitable for distribution board installation | | | Yes |
| Suitable for intermediate mounting | | | Yes |
| Colour control element | | | Black |
| Type of control element | | | Rocker lever |
| Interlockable | | | Yes |
| Type of electrical connection of main circuit | | | Screw connection |
| With pre-assembled cabling | | | No |
| Degree of protection (IP), front side | | | IP20 |
| Degree of protection (NEMA) | | | Other |
| Width | | mm | 280 |
| Height | | mm | 207 |
| Depth | | mm | 401 |
| Width in number of modular spacings | | | |